

**Application for an 1115 Waiver Program  
to Enhance Medicaid Access for  
Low Income HIV-Infected Individuals  
in the District of Columbia**

Submitted to: Health Care Financing Administration  
U.S. Department of  
Health and Human Services

Prepared by: District of Columbia  
Medical Assistance Administration

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### ATTACHMENT 1:

List of HIV Medicaid Waiver Task Force Data Subcommittee Members

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Number of Anti-Retroviral Drug Prescriptions For the District's HIV+ Medicaid Recipients

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## **I. Introduction**

Since protease inhibitors were first introduced in 1995, the lives of HIV-infected individuals with access to these medications have been prolonged and improved. Early treatment with highly active antiretroviral drug therapy (HAART) is the current standard of care for HIV-infected individuals according to U.S. Department of Health and Human Services treatment guidelines. Unfortunately, however, many people with HIV are uninsured or under-insured and cannot afford HAART, which costs approximately \$12,000 annually.

People with HIV generally do not qualify for Medicaid until they become disabled by HIV disease.<sup>1</sup> Due to the disability requirement, very few DC residents with early HIV infection currently have Medicaid coverage. As an alternative, many individuals with early HIV infection obtain HAART therapy through the AIDS Drug Assistance Program (ADAP), a discretionary program funded through the Ryan White Care Act. Yet, ADAP does not cover many medical services its clients may need outside of HIV-related prescription drugs. Additionally, because ADAP is not an entitlement program, adequate funding is not guaranteed from year to year.

The District therefore plans to expand access to clinically recommended treatment for its low-income HIV+ population through an 1115-demonstration program. The DC Medical Assistance Administration (MAA) has designed the demonstration to achieve the following goals:

- Increase access to HAART therapy for people with early HIV infection, in accordance with DHHS treatment guidelines
- Enhance access to the full range of Medicaid benefits for as many of the District's HIV+ population below the federal poverty line as is possible given the constraints posed by the federal budget neutrality requirement.

Further, this demonstration program addresses some of the barriers to clinically recommended treatment that currently exist within programs that finance HIV/AIDS care.

Given the urgent health need, the District decided to proceed and immediately submit this 1115 waiver application to DHHS and HCFA for approval. We fully understand, though, that the Secretary's approval of this 1115 waiver may be contingent on the District's ability to secure a drug price reduction. Similar to Maine, we hope to receive initial endorsement and approval of this Waiver application. We will subsequently seek administrative authorization to implement the expansion once the District has formally secured access to a reduced drug price schedule or drug discounts and has completed its program planning.

In the following sections, we discuss the development of the demonstration program and the unique community participation in this process. We characterize the target population and discuss the specific features of the proposed demonstration. We discuss the administration and management components of the demonstration as well as the planned evaluation. We analyze the fiscal implications and budget neutrality of this expansion. In the final section, we list the specific waiver and amendments requested.

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<sup>1</sup> Of course, some individuals with HIV (e.g., pregnant women) are categorically eligible for Medicaid independent of their HIV or disability status.

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## **II. Program Development and Public Participation**

This initiative, while housed in the Medical Assistance Administration (MAA) of the D.C. Department of Health, is grounded in extensive community-based input and support. The D.C. Primary Care Association (DC PCA) has taken the lead role in coordinating community input and involvement, sponsoring the following activities:

- Creating an HIV 1115 Medicaid Waiver Task Force to assist in program design and development activities. The Task Force has met approximately eleven times beginning in March 1999. The Task Force also includes a Data Subcommittee, charged with providing input on the various quantitative analyses needed and potential data sources available. A list of the members of the Data Subcommittee is included in Attachment 1.
- Holding public forums on the initiative, both to educate interested constituents and to obtain further input. A Community Information Forum was held on July 21, 1999. A second forum was held on March 26, 2000.

The MAA dedicated direct financial resources to the development effort by hiring The Lewin Group in 1999 to model program costs and to provide other technical assistance. The Lewin Group's project team<sup>2</sup> has been involved in similar HIV Medicaid expansion efforts in California, Colorado, Florida, Massachusetts, and North Carolina.

The cost estimate work in these other states has been sponsored by the Kaiser Family Foundation, which also invested in the development of the University of California San Francisco's (UCSF) cost projection model. The UCSF Model has been used for all cost estimates being derived for the District's initiative. Staff from HCFA's Office of the Actuary have reviewed the Model and participated in program development meetings sponsored by the Kaiser Family Foundation.

Consensus around the District of Columbia's broad program design features was reached at a December 17, 1999 meeting held at the DC PCA. Since that time, an executive summary document has been produced and shared with HCFA, and a conference call was held on February 14, 2000 with staff at HCFA's Central and Regional Offices, MAA, DC PCA, the Kaiser Family Foundation, and consulting team members. During this conference call, HCFA representatives recommended that the MAA submit a Concept Paper regarding this initiative to HCFA.

In response to the March 3<sup>rd</sup> submission of the Concept Paper, HCFA representatives forwarded a list of questions to the MAA. The MAA addressed the questions and concerns both internally and within the HIV 1115 Medicaid Waiver Task Force. The MAA held a subsequent conference call with representatives from HCFA, HRSA, and the OMB on August 28<sup>th</sup> to discuss these and other issues. At the conclusion of the call, HCFA encouraged the MAA to submit its Waiver application as soon as possible for review.

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<sup>2</sup> The team of consultants includes, Nancy Beronja, Brian Haile, Joel Menges, and Kathlyn Wee at Lewin, James Kahn at the University of California San Francisco (who has developed the cost estimate model that underlies the calculations being used in the District), Julia Hidalgo of Positive Outcomes, Inc., and Jeff Levi of George Washington University.

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### III. Proposed Eligibility Expansion

#### ***A. Target Population***

This section will provide general demographic data on the District's HIV+ population and its recipients with HIV currently enrolled in the Medicaid program. We also include a brief discussion of the distribution of HIV-infected DC residents by type of coverage, highlighting the substantial number of people with HIV estimated to be uninsured.

#### ***Citywide HIV+ Population***

The Administration for HIV/AIDS (AHA), DC Department of Health, has provided detailed demographic information regarding District residents living with AIDS. While AIDS cases in the District are reported, AHA has provided estimates of the number of people in the District with asymptomatic or symptomatic HIV. Overall, by 1998, there were 5,144 reported AIDS cases in the District and an estimated 10,531 individuals with asymptomatic or symptomatic HIV, for an estimated total of 15,675 HIV-infected individuals citywide.

The tables below provide distributions of the District's reported AIDS cases by gender, age and race/ethnicity in 1998. Parallel distributions for District residents with asymptomatic and symptomatic HIV are not available.

**Table 1: 1998 Reported AIDS Cases by Gender**

<b>Gender/Age</b>	<b># Reported AIDS Cases</b>	<b>Percentage of Total</b>
Adult Male	3,936	77%
Adult Female	1,118	22%
Pediatric	79	2%
Undisclosed	11	0%
<b>TOTAL</b>	<b>5,144</b>	<b>100%</b>

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**Table 2: 1998 Reported AIDS Cases by Age**

Age Group	# Reported AIDS Cases	Percentage of Total
0-12	64	1%
13-19	25	0%
20-29	820	16%
30-39	2,185	42%
40-49	1,554	30%
50+	460	9%
Undisclosed	36	1%
<b>TOTAL</b>	<b>5,144</b>	<b>100%</b>

**Table 3: Reported AIDS Cases by Race**

Race/Ethnicity	# Reported AIDS Cases	Percentage of Total
White	768	15%
Black	4,164	81%
Hispanic	182	4%
Asian/Pacific	5	0%
American Indian	0	0%
Undisclosed	25	0%
<b>TOTAL</b>	<b>5,144</b>	<b>100%</b>

***Citywide HIV+ Population in Medicaid***

The Lewin Group conducted an analysis of the District's FY97 Medicaid claims to identify the number of recipients with HIV and calculate Medicaid's costs for HIV and AIDS treatment. A coding net, developed by Julia Hidalgo, Sc.D., uses a series of ICD-9-CM codes for HIV, AIDS, and conditions included in the 1993 CDC AIDS Surveillance Case Definition and NDC codes for HIV drugs (all nucleoside analogs and protease inhibitors) to identify HIV+ persons in Medicaid claims data. Individuals with claims for certain combinations of these codes are classified as persons with AIDS, and other combinations indicate HIV infection that has not yet progressed to AIDS. The numbers of individuals identified are shown in Table 4.

**Table 4: Number of DC Medicaid Recipients with HIV, FY97**

Groups	Number of Recipients
AIDS	1,475
HIV	553
<b>TOTAL</b>	<b>2,028</b>

After identifying persons on Medicaid with AIDS and HIV, we examined the age/sex distribution of the individuals in each identified group. The results of this analysis are summarized in Table 5.

**Table 5: Age and Sex Distribution for HIV+ Persons on Medicaid**

Age Groups	AIDS		HIV	
	Male	Female	Male	Female
1- 4	49	44	8	9
5-17	38	44	14	11
18-24	13	51	8	24
25-44	461	427	188	150
45-64	218	120	85	44
65+	4	6	9	3
Total	783	692	312	241
Overall Total	1,475		553	
% male	53%		56%	
% female	47%		44%	
% children <17	12%		8%	
% >65	1%		2%	

A relatively high proportion of Medicaid beneficiaries in both the AIDS and HIV groups are women. Forty-seven percent of recipients with AIDS and 44% with HIV are female. Although a large majority of people with HIV in the District are men, most are not eligible for Medicaid unless they are disabled. In contrast, women with dependent children are categorically Medicaid-eligible and are disproportionately represented in the Medicaid population.

Adults with children with incomes below 200% FPL are currently eligible for Medicaid in the District. Formerly, SSI-eligible individuals under 75% FPL were Medicaid eligible. The District's SSI Medicaid income eligibility threshold was recently raised to 100% FPL.

#### ***HIV+ Population in the District of Columbia by Type of Coverage***

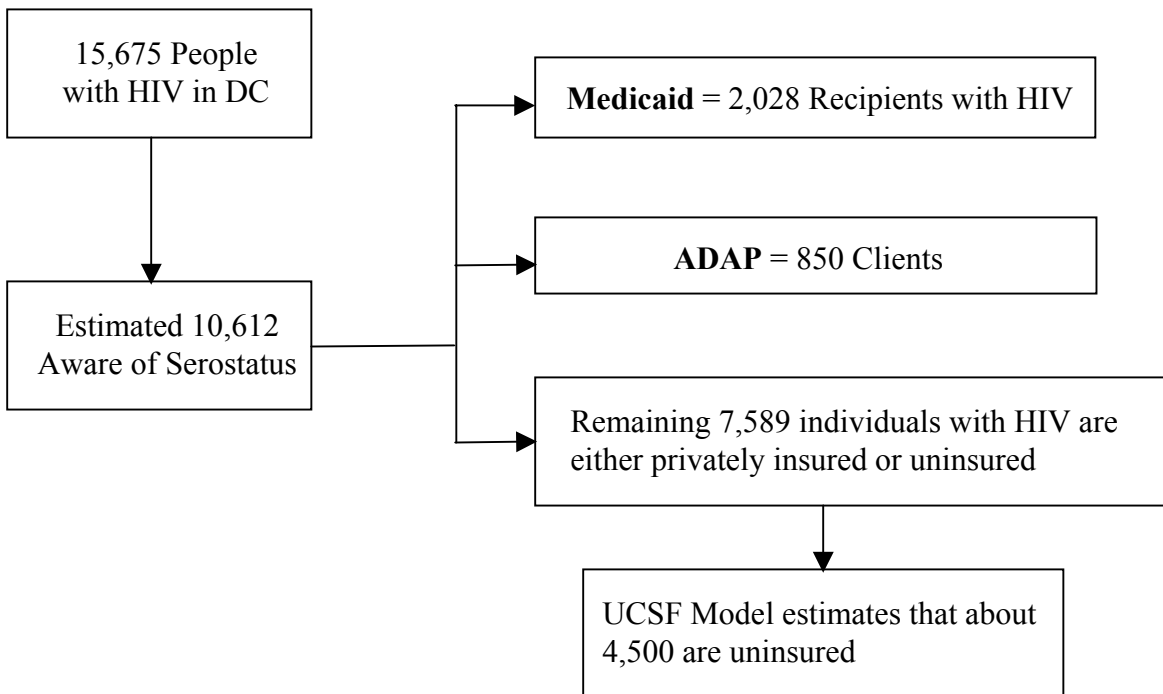
As we will discuss in greater detail in Section VI, the District is using a cost projection model developed by Dr. Jim Kahn and Brian Haile at the University of California, San Francisco (UCSF) to estimate the costs of expanding Medicaid eligibility to people with HIV. In the process of projecting overall expansion costs, the Model also produces additional data about the HIV+ population, based on District-specific inputs.

The UCSF Model facilitates estimation of the percentage of all HIV+ DC residents who are aware of their serostatus. Based on national estimates from the CDC, the Model projects that 67.5% of people with HIV are aware in the District. For the segment of the HIV+ population

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that is aware of serostatus, Figure 1 below depicts the distribution of HIV+ DC residents by type of coverage.

**Figure 1: Type of Coverage for People with HIV in the District**



**Sources:**

Medicaid = Analysis of DC's FY97 Medicaid claims performed by the Lewin Group

ADAP = National ADAP Monitoring Project Annual Report, March 1999 and estimates from AHA

Of the statistics in Figure 1, only the numbers of people with HIV on Medicaid and ADAP are based on local data. Estimated numbers of HIV+ individuals with private or no coverage are UCSF Model calculations that are based on data from national studies of insurance coverage for people with HIV.<sup>3</sup> Little data is available on income levels for uninsured DC residents with HIV.

**B. Program Design**

Throughout the process of developing its 1115 proposal, the District has considered a wide range of program options for the eligibility expansion. Below, we discuss options that have been considered and options that we have included in this proposal.

In considering design options for the eligibility expansion, the UCSF model was used to gauge the impact of changes in the program's design on overall costs and health outcomes. In this way, it was possible to identify design options that are expected to enhance access to care within the constraints of budget neutrality for inclusion in the proposal.

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<sup>3</sup> Please see Attachment 3 for greater detail.



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Using the UCSF Model, it was determined that an additional discount on HIV-related drugs in combination with an enrollment ceiling is needed to expand Medicaid eligibility while maintaining budget neutrality. Medicaid savings generated by a discount on drugs that applies to all HIV+ Medicaid beneficiaries can be used to purchase coverage for individuals who were not previously Medicaid eligible. The size of the discounts and the volume of Medicaid prescriptions to which the discounts apply determine the total pool of savings and thus, determine the numbers of persons to whom Medicaid eligibility can be awarded in a budget-neutral manner. This conclusion has driven many of our preliminary choices regarding program design, as described below.

### **Expansion Eligibility Criteria**

The District proposes to extend Medicaid eligibility to DC residents with an HIV+ diagnosis and incomes below 100% FPL. For administrative convenience, eligibility determination will disregard resource rules outside of the 100% FPL income criterion. With this income criterion, the UCSF Model estimates that at full enrollment, 490 individuals will be eligible and choose to enroll in the expansion.<sup>4</sup> The District had initially hoped to set a more generous income criterion for the eligibility expansion, but higher income thresholds significantly increase the costs of the expansion.

### **Additional Medicaid Discount on HIV-Related Drugs**

As we have noted above, some additional discount on antiretrovirals (below the price currently paid by Medicaid) is necessary to achieve budget neutrality. The number of persons who can be granted Medicaid eligibility under the Waiver is heavily dependent on the number of HIV drugs for which reduced prices can be secured, and on the level of these price reductions. The discount also must apply to all Medicaid recipients, not just those who enroll in the expansion. A discount that applies to pharmaceuticals used only by the expansion population does not generate sufficient savings to finance coverage for new eligibles.

The District is actively exploring the use of the Federal Supply Schedule (FSS) to secure such a discount.<sup>5</sup> The MAA has held several discussions in this regard with Sandi Murbach, Acting Assistant Director, FSS Service, Carol O'Brien, Team Leader for Pharmacy, FSS Service, and Jim Johnson, Service Director, FSS Service. With additional input from Mel Noel of Legal Affairs, FSS, they confirm that the District can use the FSS to procure antiretroviral medications for the DC Medicaid population.<sup>6</sup> Also, the District would not have to restrict pharmacy or provider access among HIV-infected patients in order to secure the FSS-priced drugs. Discussions on the logistics are continuing, and the District is developing an appropriate procurement and distribution methodology to fit the parameters of the FSS system and Prime Vendor program.

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<sup>4</sup> The UCSF Model includes assumptions that some eligible individuals will not opt to participate in the Medicaid expansion and that some will be unaware of their HIV serostatus.

<sup>5</sup> According to ADM 4800.2E from the General Services Administration, the "Government of the District of Columbia" is eligible to use the FSS.

<sup>6</sup> The District can procure all medications through the FSS, though this would require more extensive program planning and infrastructure development. The MAA therefore elected to seek access only to FSS-priced antiretrovirals initially and will continue to explore the possibility of procuring all medications through the FSS.

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For purposes of the application, we assume that the District will secure access to the FSS-priced antiretrovirals. Further, we assume that securing FSS-priced antiretroviral medications for all Medicaid beneficiaries in the District would yield an overall reduction of 15-25% in Medicaid pharmacy spending in HIV care. These assumptions are based on information from Ms. Murbach and from pharmacy discount/rebate information from the District.

### **Enrollment Ceiling**

Even if a 100% FPL income criterion is assumed for the expansion, it is still necessary to reduce enrollment further to achieve budget neutrality. Section VI of the concept paper provides Medicaid cost estimates for an expansion with no enrollment ceiling, which results in 490 new recipients under 100% FPL. This scenario results in additional costs to the Medicaid program over a five-year period. However, if the District achieves an additional 25% discount to the current Medicaid price for antiretroviral medications via the FSS, then about 285 individuals could be initially enrolled in the expansion while still maintaining budget neutrality. In addition, if the budget neutrality calculation includes net federal savings to Medicare, SSDI, and SSI that result from the Waiver expansion, then 312 persons could be served under the enrollment cap.<sup>7</sup>

The UCSF Model also projects that the waiver could support increasing enrollment over the five-year period while still maintaining neutrality. The enrollment cap may be raised incrementally over the waiver period to 395 enrollees by year five without compromising neutrality.<sup>8</sup> Over time, savings generated from drug discounts as more individuals enter Medicaid, and from the clinical benefits of early access to Medicaid, allow the waiver to accommodate more enrollees each year.

The District plans to enroll eligible individuals in the expansion on a first-come-first-serve basis until the enrollment limit is reached. We considered the use of a disease severity criterion but rejected this idea for several reasons. First, the District is not able to provide expensive diagnostic tests to screen potential enrollees, particularly given the uncertainty about reimbursement. Second, the District lacks the staff and resources to validate clinical and laboratory information submitted by potential enrollees. Consequently, the District elected to enroll patients as they apply and, once the cap is reached, maintain a waiting list for people who would like to enroll. The District will also move Waiver enrollees into regular Medicaid once such individuals become eligible, and the District will use the waiting list to fill any program “vacancies” created from any form of Waiver disenrollment.

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<sup>7</sup> Please see Section VI.

<sup>8</sup> The enrollment cap could rise to 431 in year five if net federal savings to Medicare, SSDI, and SSI were included in the budget neutrality calculation.

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## **Benefit Package**

The District proposes to offer a full Medicaid benefits package to all expansion enrollees.<sup>9</sup> Limitations in access to needed benefits are not desirable and do not lead to significant cost savings. The UCSF Model allows us to model the costs of a benefit package limited to prescription drugs, physician services and lab services. These major reductions in the benefit package result in a 20% savings across the first five years of the waiver period. The District found that these cost savings were not worthwhile given the barriers to access to needed services that would be created by offering a limited benefits package.

The District will also integrate the Waiver population into its planned treatment adherence project. This innovative program aims to increase HAART utilization among HIV-infected Medicaid beneficiaries, both through pharmacy monitoring and patient outreach by adherence specialists. Though still under development, the project will likely be funded through local Ryan White Care Act funds.

## **Delivery System**

The District will serve expansion enrollees via the existing fee-for-service delivery system. A new eligibility category will be created for the expansion enrollees so that these individuals can be tracked and appropriately moved into “regular” Medicaid categories should they qualify. This will create room to serve additional persons under the enrollment ceiling.

The MAA does not intend to allow waiver enrollees to be served in capitated health plans. Keeping the enrollees in the fee-for-service setting is most conducive to the data-driven outreach/adherence program. Also, the fee-for-service provider network was deemed most adequate to address the tailored needs of HIV+ beneficiaries. Shifting enrollees into HMOs does have some cost saving potential, but a significant managed care infrastructure must first be developed to adequately serve HIV+ individuals in HMOs.

## **Other Design Options**

The District considered many other features that could be incorporated in an HIV expansion to decrease costs and enhance coverage. These included individual cost-sharing through beneficiary co-pays, providing coverage continuation for some expansion enrollees, and enrolling expansion participants in managed care plans.

The UCSF Model was used to assess the cost impact of these options. Generally, these approaches will not substantially reduce additional Medicaid costs associated with the eligibility expansion. Cost-sharing on the part of the enrollee does not significantly subsidize the high costs of HIV care, and serves as a barrier to enrollment and access to care. Private coverage continuation also produces minimal savings, given that the eligible population has income below 100% FPL and is unlikely to have pre-existing private coverage. And, as indicated in the discussion above regarding delivery system design, community stakeholders

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<sup>9</sup> Case management services would be provided to Waiver enrollees in the same manner that it is presently provided to HIV-infected Medicaid beneficiaries. Waiver enrollees would have access to the entire Medicaid formulary, regardless of drug discounts received.

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have conveyed through the program development process that the Medicaid managed care system in the District is not yet equipped to serve individuals with HIV and that enrolling expansion participants in HMOs would not be positively received.

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#### **IV. Administration and Management**

The Waiver program will be administered by Steve Luzky, Ph.D. and Clem Eyo, Ph.D. at the Office of Disability and Aging within the MAA. Officials from the Administration of HIV/AIDS as well as the Office of Pharmacy at the MAA will continue to be extensively involved in all aspects of the Waiver's implementation.

The District plans to seek implementation approval for this Waiver soon after HCFA's initial approval. Currently, the MAA is in the advanced planning stage of both the operational aspects of the Waiver and the pharmacy procurement through the FSS/Prime Vendor. The District is also contracting for additional technical assistance for the program's implementation. Based on recent progress and the anticipated planning requirements, the MAA should be able to begin implementation approximately four to six months from the time of initial authorization of the Waiver program by HCFA. The MAA will provide HCFA with detailed information on the progress of the administrative planning and development efforts through monthly project reports to the HCFA Project Officer or through whatever means HCFA requires.

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## **V. Research and Evaluation**

The District plans to investigate several issues through this demonstration project. Specific aspects of the MAA's evaluation will include cost/utilization, clinical issues, and programmatic issues. While many of the analyses will be conducted at the end of the six-year demonstration, data will be continually evaluated as part of the MAA's continuing quality improvement effort.

As stated in Section III(B), the District will create a new eligibility category for Waiver enrollees. This will facilitate tracking of individuals and simplify the data gathering process.

We summarize below the general areas and related research questions for the planned evaluation. Additionally, we explain the analytic approach and the sources of data.

### **Cost/Utilization Information**

- 1. What levels of drug utilization were observed among this population during their time of enrollment in the Waiver?*

Using Medicaid claims data, the MAA will retrospectively analyze prescriptions for prophylaxis and antiretroviral medications among the Waiver population. Multiple pharmacy utilization measures (e.g., point in time estimates, etc.) will be used. The results will be compared to self-reported baseline data collected at client intake.

- 2. What was the cost-effectiveness of the Waiver program?*

Using Medicaid claims data, the MAA will estimate and report the cost per patient year of the Waiver enrollees. These costs will then be compared against Medicaid costs for clients with HIV in DC and elsewhere. To the extent possible, the MAA will estimate "baseline" costs for this patient population that would have been incurred in the absence of a Waiver in order to generate a cost per life year saved.

The MAA will also tally the dollar value of the drug discounts and compare these savings with the waiver enrollment claims costs. Through this straightforward process, the level of savings being achieved<sup>10</sup> can be continuously monitored and compared against project costs/savings. Should actual costs/savings differ substantially from those estimated by the UCSF model, the MAA will be able to adjust the enrollment ceiling upwards (or downwards) as appropriate. In this way, the District can maximize the ongoing number of enrollees under a budget-neutral waiver.

### **Clinical Information**

- 3. What clinical characteristics were prominent among Waiver beneficiaries at time of enrollment?*

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<sup>10</sup> These savings, however, would not include those from the slowing of disease progression.

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Using self-reported data from client intake, the MAA will analyze the proportion of patients with previous CD4 counts <200, prior hospitalizations, and prior opportunistic infections (OIs).

4. *What proportion of Waiver beneficiaries were not on drug therapy prior to enrolling in the Waiver?*

Using self-reported data from client intake, the MAA will analyze the proportion of patients who are currently taking (a) prophylaxis, (b) any antiretrovirals, and/or (c) combination therapy. Clients will also be asked about their use of these medications during the three months prior to their application to enroll in the Waiver.

5. *What was the incidence of serious opportunistic infections among Waiver beneficiaries with AIDS during the time of their enrollment in the Waiver?*

Using ICD-9 codes within Medicaid claims files, the MAA will determine the incidence of PCP, CMV, toxoplasmosis, and other serious OIs that would probably have required hospitalization. It will then calculate the incidence of OIs per beneficiary month among clients who are likely to have AIDS according to Dr. Julio Hidalgo's coding algorithm. This information could then be compared to the regular Medicaid population.

### **Program Information**

6. *What were the estimated take-up rates during the first six months? At what point was the enrollment cap reached?*

Using the estimated size of the eligible population as the denominator, the MAA will calculate an ongoing take-up or program participation rate.

7. *Which outreach strategies were most effective in getting HIV-infected into the health system?*

Using self-reported data from client intake, the MAA will analyze the effectiveness of various outreach strategies. Specifically, each beneficiary will be asked about source of referral and how they became aware of the new coverage option.

8. *What proportion of Waiver beneficiaries were not in ADAP prior to enrolling in the Waiver?*

Using self-reported data from client intake, the MAA will determine the proportion of beneficiaries who received services from ADAP and other RWCA-funded programs prior to applying for the Waiver. To the extent possible, data from the ADAP program will be compared against that from the Waiver.

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9. *What was the average duration of program enrollment?*

For purposes of this analysis only, patients will not be considered after the date of disenrollment, death, or six months following last contact. Duration of enrollment is the difference between (a) the date of enrollment and (b) the date of disenrollment, death, or six months following last contact. Duration of enrollment will be contrasted to check association with basic client demographics (e.g., sex, age, etc.). Duration of enrollment in regular Medicaid will be determined for those who transition onto the program.

10. *What were the principal reasons for disenrollment?*

Using case management reviews and information from case management staff, the MAA will determine the principal reasons for Waiver disenrollment. Additionally, the MAA will conduct a survey among those who voluntarily disenrolled (i.e., persons who did not die or who did not transfer to Medicaid or other coverage). Given the difficulty in contacting some patients, this analysis may rely more heavily on qualitative data from case management and other program staff.

11. *What proportion of Waiver beneficiaries subsequently enrolled in Medicaid?*

Using data from Waiver files and Medicaid claims, the MAA will determine the proportion of patients who subsequently transitioned to Medicaid.



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## **VI. Estimation of Costs/Savings and Budget Neutrality**

Estimates of Medicaid costs before and after the implementation of the proposed waiver program were produced using a spreadsheet-based cost projection model designed by James G. Kahn, MD, MPH and Brian Haile, MPP, MA at the University of California, San Francisco. The UCSF Model is based upon the clinical evidence that access to expensive anti-retroviral medications improves health status, delays disability and decreases inpatient hospital costs.

Attachment 3 includes a manuscript authored by Dr. Kahn et al., describing the overall structure and the clinical assumptions of the UCSF Model. Actuaries at HCFA are familiar with the UCSF Model and have had contact with its developers.

In order to estimate the cost of expanding Medicaid coverage to persons with HIV, the UCSF Model requires a range of District-specific data inputs. These data were collected from MAA, the DC Administration for HIV/AIDS (AHA), the DC PCA, and other data sources. Attachment 4 lists all DC-specific inputs that may not have been discussed earlier in this paper and cites all data sources.

### ***Cost Estimate Overview***

All of the budget neutral cost estimates for the proposed 1115 program that are presented below include several key common elements. These elements include the following:

- 100% FPL Income Eligibility Criterion
- An additional discount on all HIV-related drugs that applies to all HIV+ Medicaid recipients
- An enrollment ceiling
- A full Medicaid benefits package
- No cost-sharing, managed care enrollment or private coverage continuation

Cost estimates for varying drug discount levels and corresponding enrollment caps are also presented. The range here (15-25%) represents the lower and upper limits of the expected average discount for antiretrovirals. The estimated discount varies by the methodology used for the weighting in determining the average discount. The MAA is developing a final estimate using up-to-date pharmacy claims, which will be used to determine the exact enrollment cap under the Waiver.

As you will see through examination of these Medicaid cost projections, the assumed drug discount determines the corresponding enrollment ceiling needed to achieve neutrality. The greater the discount and number of drugs to which the reduced prices apply, the more Medicaid savings are created to finance coverage for a larger number of new recipients.

The UCSF Model produces estimates of Medicaid expenditures in the presence and absence of the expansion. These estimates are made on a quarterly basis for a ten-year period. The estimates of Medicaid costs before and after the expansion is implemented are used to calculate the net, or additional, Medicaid costs or savings for every year up to ten years.

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Enrollment levels are also used to calculate per capita costs for the expansion for each year the program is in operation.

The expenditure estimates in this document reflect Medicaid costs over a five-year waiver period in current dollars. The five-year window was chosen to conform to CBO and OMB conventions for budget scoring. The decision to present costs/savings in 1998 (rather than inflation-adjusted) dollars was less obvious.<sup>11</sup> Academic conventions differ, and many suggest that future costs and benefits instead be discounted. Interestingly, presenting the Waiver's costs/savings in 1998 dollars actually makes it more difficult to achieve budget neutrality. The net costs of the Waiver program decrease over time, and actually become negative (i.e., the program becomes cost-saving) in year 4. Thus, the magnitude of the five-year savings would increase if the cost projections were adjusted for inflation. The estimates below reflect the more conservative approach and are presented in 1998 dollars.

Note that while the Model is accurately calculating net waiver costs, the current output seems to be understating gross Medicaid spending. Again, this difference does not grossly affect the projected net costs of the Waiver. It does, however, understate the total Medicaid spending inclusive of the Waiver costs over five years in the absence of a drug discount. We will work with HCFA and OMB to estimate total Medicaid costs to resolve this technical issue if it impacts the approved parameters of the Waiver.

Exhibit 1A summarizes Medicaid cost estimates for an expansion, assuming an additional 25% discount to antiretroviral drug prices for all Medicaid recipients. As mentioned in Part III, the enrollment ceiling may be raised incrementally over five years from 285 enrollees to 395 enrollees without compromising budget neutrality. Given the assumptions listed above, this drug discount and enrollment limit combination is budget neutral over five years. A detailed description of the estimates in Exhibit 1A follows the chart. Exhibit 1B presents the same information when a more conservative 15% antiretroviral drug price reduction is assumed.

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<sup>11</sup> The base year of 1998 parallels the cost estimates used by Kahn et al.

**Exhibit 1A: Summary Cost Estimates for HIV Medicaid Expansion in the District of Columbia**

Assuming an Additional 25% Drug Price Discount for Medicaid

**1 Summary Net Medicaid Cost**

5 Years	\$0
10 Years	-\$7,497,991

	Year1	Year2	Year3	Year4	Year5	Year6	Year7	Year8	Year9	Year10	Total, Yrs 1-5
<b>2 Baseline Medicaid Costs Without Expansion</b>											
Total Federal and State	\$38,069,460	\$42,425,848	\$46,112,960	\$49,386,470	\$52,413,388	\$55,305,072	\$58,136,610	\$60,958,421	\$63,803,425	\$66,691,692	\$228,408,127
Federal Only	\$26,648,622	\$29,698,094	\$32,279,072	\$34,570,529	\$36,689,372	\$38,713,550	\$40,695,627	\$42,670,895	\$44,662,397	\$46,684,185	\$159,885,689
State Only	\$11,420,838	\$12,727,754	\$13,833,888	\$14,815,941	\$15,724,017	\$16,591,522	\$17,440,983	\$18,287,526	\$19,141,027	\$20,007,508	\$68,522,438
<b>3 Total Medicaid Costs With Expansion</b>											
Total Federal and State	\$38,553,283	\$42,681,705	\$46,127,882	\$49,145,689	\$51,899,567	\$54,497,781	\$57,012,045	\$59,489,331	\$61,959,246	\$64,438,826	\$228,408,126
Federal Only	\$26,987,298	\$29,877,194	\$32,289,518	\$34,401,982	\$36,329,697	\$38,148,447	\$39,908,431	\$41,642,532	\$43,371,472	\$45,107,178	\$159,885,688
State Only	\$11,565,985	\$12,804,512	\$13,838,365	\$14,743,707	\$15,569,870	\$16,349,334	\$17,103,613	\$17,846,799	\$18,587,774	\$19,331,648	\$68,522,438
<b>4 Net Medicaid Costs of Expansion Initiative</b>											
Total Federal and State	\$483,823	\$255,857	\$14,923	-\$240,781	-\$513,822	-\$807,290	-\$1,124,565	-\$1,469,090	-\$1,844,179	-\$2,252,866	\$0
Federal Only	\$338,676	\$179,100	\$10,446	-\$168,547	-\$359,675	-\$565,103	-\$787,196	-\$1,028,363	-\$1,290,925	-\$1,577,006	\$0
State Only	\$145,147	\$76,757	\$4,477	-\$72,234	-\$154,147	-\$242,187	-\$337,370	-\$440,727	-\$553,254	-\$675,860	\$0
<b>5 Approximate Number of Waiver Enrollees</b>											
	285	314	341	368	395	422	450	478	506	535	
<b>6 Average Net Medicaid Cost Per Waiver Enrollee</b>											
Total Federal and State	\$1,696	\$815	\$44	-\$654	-\$1,301	-\$1,912	-\$2,500	-\$3,074	-\$3,642	-\$4,208	
Federal Only	\$1,187	\$571	\$31	-\$458	-\$911	-\$1,339	-\$1,750	-\$2,152	-\$2,549	-\$2,946	
State Only	\$509	\$245	\$13	-\$196	-\$390	-\$574	-\$750	-\$922	-\$1,092	-\$1,262	
<b>7 Net Costs of the Medicaid Expansion Initiative, With Enrollment Ceiling Adjustment</b>											
Total Federal and State	\$483,823	\$232,693	\$12,485	-\$186,718	-\$371,268	-\$545,692	-\$713,438	-\$877,207	-\$1,039,110	-\$1,200,771	<b>\$171,015</b>
Federal Only	\$338,676	\$162,885	\$8,740	-\$130,703	-\$259,888	-\$381,984	-\$499,407	-\$614,045	-\$727,377	-\$840,540	\$119,710
State Only	\$145,147	\$69,808	\$3,746	-\$56,016	-\$111,380	-\$163,708	-\$214,032	-\$263,162	-\$311,733	-\$360,231	\$51,304

**Exhibit 1B: Summary Cost Estimates for HIV Medicaid Expansion in the District of Columbia**

Assuming an Additional 15% Drug Price Discount for Medicaid

**1 Summary Net Medicaid Cost**

5 Years	\$0
10 Years	-\$4,359,168

	Year1	Year2	Year3	Year4	Year5	Year6	Year7	Year8	Year9	Year10	Total, Yrs 1-5
<b>2 Baseline Medicaid Costs Without Expansion</b>											
Total Federal and State	\$38,069,460	\$42,425,848	\$46,112,960	\$49,386,470	\$52,413,388	\$55,305,072	\$58,136,610	\$60,958,421	\$63,803,425	\$66,691,692	\$228,408,127
Federal Only	\$26,648,622	\$29,698,094	\$32,279,072	\$34,570,529	\$36,689,372	\$38,713,550	\$40,695,627	\$42,670,895	\$44,662,397	\$46,684,185	\$159,885,689
State Only	\$11,420,838	\$12,727,754	\$13,833,888	\$14,815,941	\$15,724,017	\$16,591,522	\$17,440,983	\$18,287,526	\$19,141,027	\$20,007,508	\$68,522,438
<b>3 Total Medicaid Costs With Expansion</b>											
Total Federal and State	\$38,349,922	\$42,574,226	\$46,121,708	\$49,246,925	\$52,115,346	\$54,836,491	\$57,483,448	\$60,104,598	\$62,730,896	\$65,380,618	\$228,408,127
Federal Only	\$26,844,945	\$29,801,958	\$32,285,196	\$34,472,848	\$36,480,742	\$38,385,543	\$40,238,414	\$42,073,219	\$43,911,627	\$45,766,433	\$159,885,689
State Only	\$11,504,976	\$12,772,268	\$13,836,512	\$14,774,078	\$15,634,604	\$16,450,947	\$17,245,034	\$18,031,379	\$18,819,269	\$19,614,185	\$68,522,438
<b>4 Net Medicaid Costs of Expansion Initiative</b>											
Total Federal and State	\$280,461	\$148,378	\$8,749	-\$139,545	-\$298,043	-\$468,581	-\$653,162	-\$853,823	-\$1,072,529	-\$1,311,074	\$0
Federal Only	\$196,323	\$103,865	\$6,124	-\$97,681	-\$208,630	-\$328,007	-\$457,213	-\$597,676	-\$750,770	-\$917,752	\$0
State Only	\$84,138	\$44,513	\$2,625	-\$41,863	-\$89,413	-\$140,574	-\$195,948	-\$256,147	-\$321,759	-\$393,322	\$0
<b>5 Approximate Number of Waiver Enrollees</b>											
	161	177	192	208	223	238	254	270	286	302	
<b>6 Average Net Medicaid Cost Per Waiver Enrollee</b>											
Total Federal and State	\$1,745	\$839	\$45	-\$672	-\$1,337	-\$1,965	-\$2,571	-\$3,163	-\$3,748	-\$4,334	
Federal Only	\$1,221	\$587	\$32	-\$470	-\$936	-\$1,376	-\$1,800	-\$2,214	-\$2,624	-\$3,034	
State Only	\$523	\$252	\$14	-\$202	-\$401	-\$590	-\$771	-\$949	-\$1,125	-\$1,300	
<b>7 Net Costs of the Medicaid Expansion Initiative, With Enrollment Ceiling Adjustment</b>											
Total Federal and State	\$280,461	\$134,808	\$7,307	-\$107,981	-\$214,826	-\$315,895	-\$413,205	-\$508,330	-\$602,497	-\$696,646	<b>\$99,769</b>
Federal Only	\$196,323	\$94,366	\$5,115	-\$75,587	-\$150,379	-\$221,126	-\$289,243	-\$355,831	-\$421,748	-\$487,652	\$69,838
State Only	\$84,138	\$40,442	\$2,192	-\$32,394	-\$64,448	-\$94,768	-\$123,961	-\$152,499	-\$180,749	-\$208,994	\$29,931

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## **Section-by-Section Explanation of Exhibit 1A**

### **1. Summary Net Medicaid Cost Estimates**

The table of Summary Net Medicaid Cost Estimates at the top of Exhibit 1A includes estimates of overall additional costs to Medicaid if a waiver program is implemented. By definition, a budget-neutral waiver program will generate no additional Medicaid expenditures. Given the 25% reduction in the price of antiretroviral drugs and the enrollment limit, the Model predicts that implementing the expansion will not require additional Medicaid expenditures in the first five years of the waiver.

### **2. Existing Medicaid Costs (Without Expansion)<sup>12</sup>**

The UCSF Model estimates Medicaid's current costs for HIV and AIDS treatment for 2,018 existing recipients in the absence of a waiver program. The Model provides estimates for five and ten years, and calculates District and federal government shares of Medicaid costs. In Year 1, the Medicaid program spends an estimated \$38.1 million (federal + District share) on HIV+ beneficiaries without a waiver expansion. In year five, Medicaid expenditures are projected to be \$52.4 million, assuming no waiver expansion.

The UCSF Model's projections of Medicaid costs in the absence of the expansion reflect the costs of people with HIV who are currently on Medicaid, and people who will become disabled and, therefore, eligible for Medicaid over the five-year period. Again, these estimates do not include medical cost inflation over this period.

### **3. Total Medicaid Costs (With Expansion)<sup>14</sup>**

These estimates include all costs associated with HIV+ persons who qualify for Medicaid under current eligibility rules and those who enroll in the waiver expansion. Total Medicaid cost estimates are also provided annually and are broken down by District and Federal government expenditures. In the first year of the expansion, Medicaid will spend \$38.6 million on a total of approximately 2,303 Medicaid recipients, including 2,018 existing beneficiaries and 285 new waiver participants. By year five, Medicaid expenditures are projected to be \$51.9 million for all recipients with HIV, including 395 Waiver enrollees.

### **4. Net Costs of the Medicaid Expansion Initiative**

The net, or additional costs to Medicaid for implementing a waiver expansion are calculated by subtracting projected existing Medicaid costs from Medicaid's total cost when a waiver is in place. The figures in Row 4 demonstrate that the waiver produces additional costs to Medicaid in year one through three, but generates savings in years four and five. The cumulative cost of the five years is \$0 (i.e., the Waiver is budget-neutral over five years).

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<sup>12</sup> As stated above, the costs/savings are presented in 1998 dollars, which understate future year savings.

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## 5. Approximate Number of Waiver Enrollees

The UCSF Model allows us to fix enrollment for year one, but projects steadily increasing enrollment over time. To achieve budget neutrality, enrollment must be limited to 285 enrollees in the first year of waiver operations. The Model projects that the program can serve additional enrollees each year for five years. By year five, the District can enroll 395 individuals in the program while maintaining budget neutrality.

## 6. Average Net Medicaid Cost Per Waiver Enrollee

We calculated the per capita net Medicaid cost associated with the waiver by dividing the annual net Medicaid cost estimate (Row 4) by the projected number of waiver enrollees (Row 5). Using the Model's projected increasing enrollment for each year, we see that the per capita net costs of the waiver decrease steeply over time. In year one, the net Medicaid per capita cost (federal + District) is \$1,696 for 285 enrollees. By year five, the expansion generates a savings of about \$1,301 per enrollee, while enrollment rises to 395 enrollees.

### ***Expansion Costs Without a Drug Discount and Enrollment Limit***

Without an additional discount on HIV-related drugs or an enrollment ceiling, the District's expansion proposal is not budget neutral within five years. Assuming an income eligibility criterion of 100% FPL, Table 6 below provides an estimate of additional expenditures to the Medicaid program over five years if an expansion without these two elements was implemented.

**Table 6: Net Medicaid Costs of Expansion without a Discount or Cap**

<b>Five-Year Net Medicaid Costs</b>	
Projected Number of Enrollees	490
Federal Costs	\$26.1 million
District Costs	\$11.2 million
Total Costs	\$37.2 million

*Note: Federal and District Costs do not sum to Total Costs due to rounding.*

Expanding Medicaid to HIV+ people in the District while still maintaining budget neutrality was not deemed possible without creating a pool of savings on existing Medicaid enrollees in some fashion.

### ***Other Budget Neutral Scenarios***

Exhibit 1 shows the level of detail that we can provide on each cost estimate developed for the expansion program. The remainder of this section will discuss alternative budget neutral scenarios generally.

In the context of HIV, we think it appropriate to include non-Medicaid federal health and disability spending when making neutrality calculations for Section 1115 waivers. These programs provide significant financial support and medical coverage to HIV+ individuals,

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particularly for those who are disabled by HIV disease. The UCSF model projects that the Waiver would reduce federal spending on Medicare, SSDI, and SSI. As Table 7 illustrates, the savings were sufficient to increase the Waiver enrollment cap by roughly 10%.

**Table 7: Enrollment Caps under Various Budget-Neutral Scenarios**

<b>Enrollment Caps in Year 1</b>	
Medicaid HIV drug price reduced 25%	285
+ SSDI, SSI, & Medicare savings	312
Medicaid HIV drug price reduced 15%	161
+ SSDI, SSI, & Medicare savings	175

For each of these scenarios, the enrollment cap may be increased over the five-year period without compromising the budget neutrality of the program.

Based on this evidence, “budget neutrality” more broadly defined would permit an enrollment cap of 312 beneficiaries for the Waiver during year one, assuming a 25% drug price reduction (i.e., FSS-priced antiretrovirals). The enrollment cap could rise to 431 beneficiaries in year five with no effect on budget neutrality. The District urges that HCFA include the Waiver’s net impacts on Medicare, SSDI, and SSI in the budget neutrality calculations. These are legitimate savings to the Federal Government and permit the MAA to offer coverage to approximately two dozen additional persons.



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## **VI. Waivers and Amendments Requested**

Pursuant to Section 1115 of the Social Security Act, the District of Columbia requests a waiver of the relevant and applicable sections and subsections of Title XIX in order to implement the expanded Medicaid coverage demonstration project for HIV-infected adults up to 100 percent of the federal poverty level (FPL). Based on discussions with Carrie Smith and others at HCFA, we request a waiver including but not limited to Section 1115(a)(2).

### ***Waiver Under Section 1115(a)(2)***

The District of Columbia requests that, pursuant to Section 1115(a)(2), HCFA participate in the following costs that would not otherwise be eligible for reimbursement under Medicaid.

#### ***Income Limitations***

Section 1903(f) of the Act and 42 C.F.R. § 435.100 et seq., prohibit payments under Medicaid to States that implement eligibility standards in excess of the maximums allowed by regulations. The District of Columbia requests a waiver of these provisions to expand eligibility HIV-infected adults up to 100 percent of the FPL. No resource/asset rule will be used in the determination of eligibility. The expanded eligibility will not result in cost increases because of the offsetting savings from other aspects of the Demonstration.

#### ***Time Frame***

Given the urgent health need, the District decided to proceed and submit this 1115 waiver application to DHHS and HCFA for approval. We fully understand, though, that the Secretary's approval of this 1115 waiver may be contingent on the District's ability to secure a drug price reduction. Similar to Maine, we hope to receive initial endorsement and approval of this Waiver application. We will subsequently seek administrative authorization to implement the expansion once the District has formally secured access to a reduced drug price schedule or drug discounts and has completed its program planning.

# **ATTACHMENT 1:**

## **List of HIV Medicaid Waiver Task Force**

### **Data Subcommittee**

#### **Members**

## List of DC HIV Medicaid Wavier Task Force, Data Subcommittee Members

Member	Organization
Sharon Baskerville Executive Director	District of Columbia Primary Care Association
Nancy Beronja Senior Manager	The Lewin Group
Clement Eyo	District of Columbia Medical Assistance Administration
Steve Lutzky Chief, Office of Aging and Disability	District of Columbia Medical Assistance Administration
Donna Folkemer Chief, Policy and Planning	District of Columbia Medical Assistance Administration
Rich Fortenbery	Ryan White Title II Community AIDS National Network (T*II*CANN)
Pat Hawkins Associate Executive Director	Whitman Walker Clinic
Julia Hidalgo President	Positive Outcomes, Inc.
Frederick Isasi Health Policy Analyst	District of Columbia Primary Care Association
Jeffery Levi Co-Director	Center for Health Services Research, George Washington University
Modestine Lowry Chief, ADAP	Administration for HIV/AIDS DC Department of Health
Joel Menges Vice President	The Lewin Group
Luau Temprosa	Administration for HIV/AIDS DC Department of Health
Kathlyn Wee Research Analyst	The Lewin Group
Brian Haile Associate	The Lewin Group
Bruce Weiss Director, Social Service Programs and Health Planning	DC CARE Consortium

## **ATTACHMENT 2:**

**Number of Anti-Retroviral Drug Prescriptions**

**For the District's HIV+**

**Medicaid Recipients**

# of PI/NNRTI Prescriptions	# of Beneficiaries	% of Total	Cumulative %
0	418	38.3%	38.3%
1	83	7.6%	45.9%
2	70	6.4%	52.3%
3	47	4.3%	56.6%
4	58	5.3%	62.0%
5	47	4.3%	66.3%
6	38	3.5%	69.8%
7	26	2.4%	72.1%
8	39	3.6%	75.7%
9	41	3.8%	79.5%
10	34	3.1%	82.6%
11	38	3.5%	86.1%
12	40	3.7%	89.7%
13	19	1.7%	91.5%
14	11	1.0%	92.5%
15	14	1.3%	93.8%
16	5	0.5%	94.2%
17	8	0.7%	95.0%
18	9	0.8%	95.8%
19	4	0.4%	96.2%
20	9	0.8%	97.0%
21	4	0.4%	97.3%
22	7	0.6%	98.0%
23	3	0.3%	98.3%
24	3	0.3%	98.5%
25	4	0.4%	98.9%
26	1	0.1%	99.0%
27	2	0.2%	99.2%
28	2	0.2%	99.4%
29	1	0.1%	99.5%
31	1	0.1%	99.5%
32	2	0.2%	99.7%
35	3	0.3%	100.0%
Total # of Beneficiaries*		1091	

\*Total includes only beneficiaries that were Medicaid eligible through all of FY97 and FY98.

<sup>13</sup> PI = protease inhibitor; NNRTI = non-nucleoside reverse transcriptase inhibitor.

**A High Proportion of DC Medicaid Beneficiaries with Asymptomatic/  
Symptomatic HIV Have No PI/NNRTI Prescriptions<sup>14</sup>**

# of PI Prescriptions	# of Beneficiaries	% of Total	Cumulative %
0	142	40.1%	40.1%
1	15	4.2%	44.4%
2	21	5.9%	50.3%
3	18	5.1%	55.4%
4	14	4.0%	59.3%
5	10	2.8%	62.1%
6	20	5.6%	67.8%
7	15	4.2%	72.0%
8	8	2.3%	74.3%
9	8	2.3%	76.6%
10	7	2.0%	78.5%
11	14	4.0%	82.5%
12	18	5.1%	87.6%
13	9	2.5%	90.1%
14	3	0.8%	91.0%
15	4	1.1%	92.1%
16	2	0.6%	92.7%
17	2	0.6%	93.2%
18	3	0.8%	94.1%
19	3	0.8%	94.9%
20	3	0.8%	95.8%
21	3	0.8%	96.6%
22	2	0.6%	97.2%
24	2	0.6%	97.7%
25	2	0.6%	98.3%
26	1	0.3%	98.6%
28	1	0.3%	98.9%
30	1	0.3%	99.2%
32	1	0.3%	99.4%
33	1	0.3%	99.7%
40	1	0.3%	100.0%
Total # of Beneficiaries*		354	

\*Total includes only beneficiaries that were Medicaid eligible through all of FY97 and FY98.

<sup>14</sup> PI = protease inhibitor; NNRTI = non-nucleoside reverse transcriptase inhibitor.

## **ATTACHMENT 3:**

### **UCSF Model Manuscript**

## **ATTACHMENT 4:**

**District-Specific Data Used**

**In the UCSF Model**



## Data Inputs Required by the UCSF Model

Data Input	Current Value	Source
Number of HIV+ People Statewide	15,675	AHA
Number of HIV+ People Statewide with AIDS	5,144	CDC HIV/AIDS Surveillance Report
Estimate of annual HIV incidence	1,756 persons/year	AHA
Annual Number of Deaths	189 deaths/year	AHA
Annual per person Medicaid cost for PIs	\$4,163	MAA
Annual per person Medicaid cost for nucleoside analogs	\$5,070	MAA
Awareness (Percent of HIV+ population aware of their serostatus)	67.5%	Calculated by the UCSF Model, based on CDC estimates
Income Criteria for ADAP	300% FPL	AHA
Annual ADAP benefit per client	\$5,924/year	National ADAP Monitoring Project Report, March 1999
Annual Medicaid Cost for HIV care	\$8,760	DC Medicaid claims analysis performed by the Lewin Group
Annual Medicaid Cost for AIDS care	\$28,480	
Medicaid Drug Discount (current)	10% AWP	MAA
Medicaid Rebate (current)	15.1% AMP	MAA